

Integrated Disposal Facility public comment period

Class 3 permit modification for leachate collection system



Figure 1. Columbia River looking at the Hanford site

- Public comment period
Dec. 5, 2022 – Jan. 20, 2023
- The proposed permit modification will add two leachate collection system (LCS) dangerous waste management units (DWMUs) to store leachate collected from the IDF disposal cells.

Public comment invited

The Washington State Department of Ecology (Ecology) is proposing a change to the Hanford Facility Resource Conservation and Recovery Act Permit, Revision 8C.

This change affects the Dangerous Waste Portion for the Treatment, Storage, and Disposal of Dangerous Waste for the Integrated Disposal Facility located in Part III, Operating Unit Group 11.

The Permittees requested a Class 3 modification to the Integrated Disposal Facility (IDF) chapter of the Hanford Dangerous Waste Permit in accordance with Washington Administrative Code 173-303-830(4)(c).

The permittees are:

U.S. Department of Energy
Richland Office
P.O. Box 550
Richland, WA 99352

Central Plateau Cleanup Company LLC
P.O. Box 1464
Richland, WA 99352

Background

The Hanford Site occupies 580 square miles in southeastern Washington State. The site produced plutonium for the nation's defense program from 1943 to the late 1980s. Today, waste management and environmental cleanup are the primary missions at Hanford.

IDF is an engineered disposal site at the center of the Hanford Site. It is designed to receive immobilized low-activity waste from the Waste Treatment and Immobilization Plant and other waste from Hanford Site operations.

IDF is currently in a "pre-active life" status and is not permitted to receive any dangerous waste. The facility currently consists of one dangerous waste management unit (DWMU) (landfill disposal cell).

Apart from this proposed modification, there is a separate Class 3 permit modification, which will bring the number of DWMUs up to four, including two landfill disposal cells, a storage pad, and a treatment pad. When this separate permit modification becomes effective, it will move IDF into an active-life phase of the facility to start receiving approved waste.



Figure 2. The Integrated Disposal Facility

Overview & Changes

This proposed permit modification adds two leachate collection systems (LCS) DWMUs in the IDF Permit to store leachate collected from the IDF disposal cells.

The LCS DWMUs look and function like tank units. However, the system has as a geomembrane liner system instead of a solid bottom. They do not meet the regulatory definition of a tank per WAC 173-303-040. Additionally, the liner system does not provide structural integrity independently; therefore, the system cannot pass a structural integrity test as a tank system.

Since they do not meet necessary design requirements for a tank system, Ecology determined these LCS DWMUs should be permitted as miscellaneous units in accordance with WAC 173-303-680, *Miscellaneous Units*.

Per WAC 173-303-680(2), permit terms and provisions from both WAC 173-303-640, *Tank Systems*, and WAC 173-303-650, *Surface Impoundments*, can be applied to these miscellaneous units, as applicable.

The proposed permit modification will allow the Permittees to operate two LCS DWMUs to store leachate collected from the IDF disposal cells.

Leachate from the IDF Disposal Cells is conveyed from the leachate collection and removal system to the

LCS DWMUs. Each unit has a working capacity of 1,420,000 L (375,000 gal).

IDF plays a vital role in supporting Hanford’s Direct-Feed Low-Activity Waste program (DFLAW), which is an important part of the Hanford cleanup process.

This proposed permit modification will incorporate new and modified information to the following IDF Permit files:

- Unit-Specific Permit Conditions
- Chapter 1.0, “Part A Form”
- Chapter 3.0, “Waste Analysis Plan”
- Chapter 4.0, “Process Information”
- Chapter 6.0, “Procedures to Prevent Hazards”
- Chapter 8.0, “Personnel Training”
- Chapter 11.0, “Closure”
- Appendix 4A1, “Phase 1 Critical Systems Design Report”
- Appendix 4A3, “Critical Systems Design Drawings”
- Appendix 4C, “Facility Response Action Plan”
- Appendix 4D, “Construction Specification”
- Appendix C7, “Leachate Monitoring Plan” (new)
- Appendix C7A, “Sampling and Analysis Plan for IDF Leachate” (new)
- Appendix C8, “Sub-Surface Liquids Monitoring Operations” (new)
- Appendix 11A, “Visual Sample Plan Report Documentation” (new)

Reviewing the proposed changes

Ecology invites to you to review and comment on this proposed IDF permit modification. See the last page for comment period dates and information on how to submit comments.

Copies of the application for the proposed permit, the draft permit and fact sheet, and supporting documentation will be available during the public

comment period online at Ecology’s website¹. The documents will also be available electronically at the Hanford Public Information Repositories listed on the next page.

Ecology will consider and respond to all significant comments received during the public comment period. We will document our responses and issue a response to comments document when we make our final permitting decision.

Hanford’s Information Repositories

Ecology Nuclear Waste Program
Resource Center
3100 Port of Benton Blvd.
Richland, WA 99354
509-372-7950

U.S. Department of Energy
Administrative Record
2440 Stevens Drive, Room 1101
Richland, WA 99354
509-376-2530

Washington State University Tri-Cities
Department of Energy Reading Room
2770 Crimson Way, Room 101L
Richland WA 99354

University of Washington
Suzzallo Library
Box 352900
Seattle, WA 98195
206-543-5597

Gonzaga University
Foley Center
502 E Boone Avenue
Spokane, WA 99258
509-313-6110

Portland State University
Millar Library
1875 SW Park Avenue
Portland, OR 97207
503-725-4542

For information on other comment periods or ways to get involved, go to ecology.wa.gov/Hanford and click “Public comment periods” on the left bar or visit Hanford.gov “public involvement opportunities”.

You can also follow us on social media.

 @EcologyWAHanford

 @ecyHanford

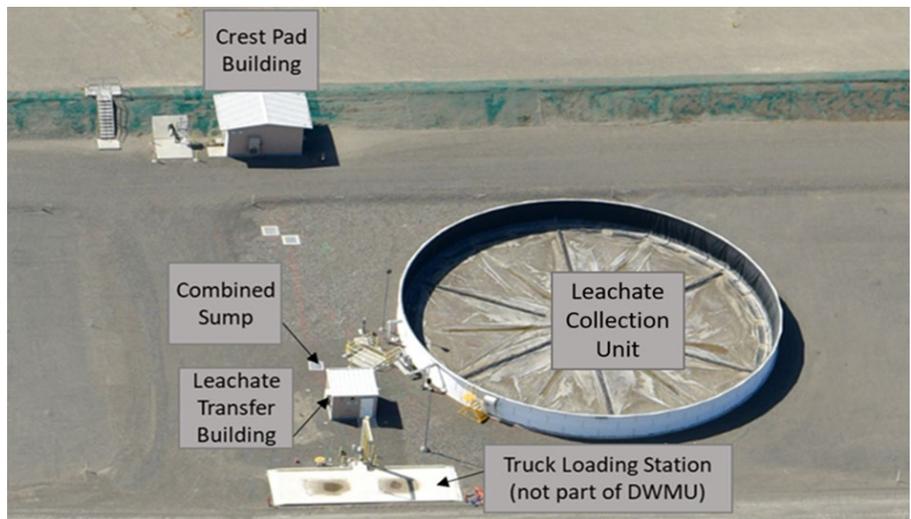


Figure 3 The Leachate Collection System

¹ Ecology.wa.gov/Waste-Toxics/Nuclear-waste/Public-comment-periods



Nuclear Waste Program
 3100 Port of Benton Blvd
 Richland WA 99354

IDF Leachate Collection

Dec. 5, 2022 Jan. 20, 2023



Electronic submission (preferred):
https://nw.ecology.commentinput.com/?id_JFVp9

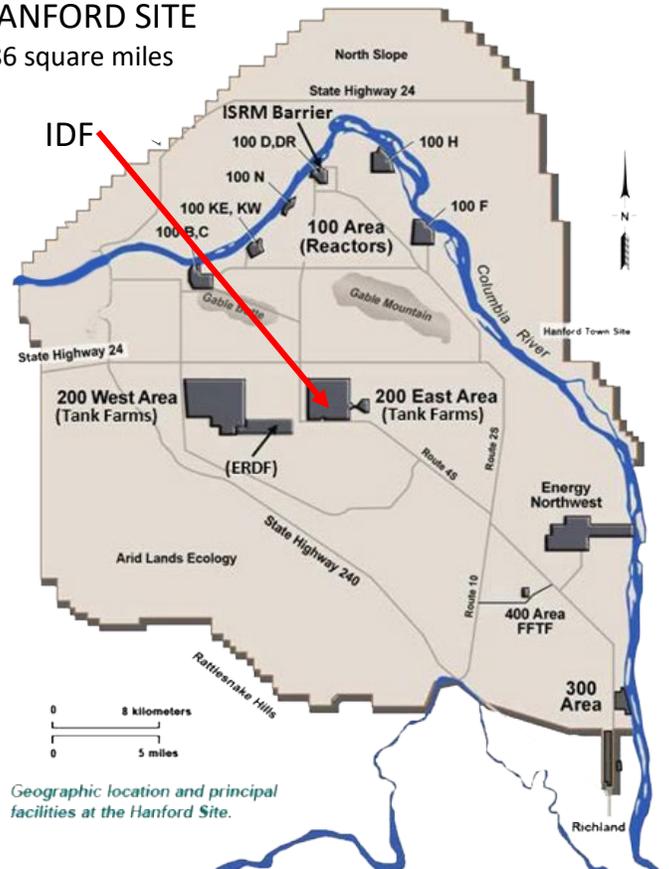
Mail or hand delivery

Daina McFadden
 3100 Port of Benton Blvd
 Richland, WA 99354

A public hearing is not scheduled, but if there is enough interest, we will consider holding one. To request a hearing or for more information, contact:

Daina McFadden
 509 372 7950
 Hanford@ecy.wa.gov

HANFORD SITE 586 square miles



Geographic location and principal facilities at the Hanford Site.